**DESIGN AND TECHNOLOGY**

**“SIMPLE VEHICLE” RACING CAR DESIGN TASK**

**Situation:**

In days not long ago, racing cars were often multi-purpose. In fact, a driver’s day car was often driven to the track, the exhaust might be modified in the pits, number plates unscrewed, and then racing started. Purpose designed racing cars such as the Ford GT Falcon and Holden Monaro took this to an extreme in the 1970s.

Another approach was to build a racing car as a project and also have it road registered. The Caterham 7 was a copy of the Lotus 7 and allowed home engineers to build a known successful design. See images:

<http://www.google.com.au/search?tbm=isch&hl=en&source=hp&biw=1280&bih=598&q=caterham+7&gbv=2&oq=caterham+7&aq=f&aqi=g10&aql=&gs_sm=3&gs_upl=1076l3123l0l4653l10l8l0l0l0l0l601l1506l4-2.1l3l0&gs_l=img.3..0l10.1076l3123l0l4653l10l8l0l0l0l0l601l1506l4-2j1l3l0.frgbld>

A range of race types have been conducted, including circuit racing, rallying, drag races and hill climbs. See videos:

Hill climb Lotus 7: <http://www.youtube.com/watch?v=1rFHa8_w01U&feature=related>

Caterham 7 drag race versus Mitsubishi Evo: <http://www.youtube.com/watch?v=vBiB04ocrAE&feature=related>

**Design Brief:**

Design and build a car to race in hill climb and drag race (or timed sprint) events.

**Specifications:**

“Simple Vehicle” parts. Two pieces of acrylic (polymethylmethacrylate, pmma).

**Folio:**

Complete a design folio – format to be discussed – to show the development of the design with the following section headings: management, research, ideas, refinement, working drawings D.O. 2D, product drawings 3D, evaluation.

**Due dates:**

Interim dates will be set for folio and car stages to be advised. Car racing and assessment will be 24 and 25 May. Final due date for all work complete is 31 May.